



BUCKET NO.: ISPS-2000

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**In Re Application of:**

**Ole Buchardt, et al.**

**Application No.: 10/657,600**

**Filing Date: September 8, 2003**

**For: PEPTIDE NUCLEIC ACIDS**

**Confirmation No.: Not yet assigned**

**Group Art Unit: Not Yet Assigned**

**Examiner: Not Yet Assigned**

DATE OF DEPOSIT: *October 7, 2003*

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*Elizabeth A. McLoud*

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

**INFORMATION DISCLOSURE STATEMENT**

Pursuant to 37 CFR § 1.56 and in accordance with 37 CFR §§ 1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 CFR § 1.56(b).

In accordance with § 1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified application, within three months of the date of entry into the national stage of the above identified application as set forth in § 1.491, before the mailing date

of a first Office Action on the merits of the above-identified application, or before the mailing date of a first Office Action after the filing of request for continued examination under § 1.114, no additional fee is required.

- In accordance with § 1.129(a), this Information Disclosure Statement is being filed in connection with  the first or  second After Final Submission, therefore:
  - Certification in Accordance with § 1.97(e) is attached; or
  - The fee of \$180.00 as set forth in § 1.17(p) is attached.
- In accordance with § 1.97(c), this Information Disclosure Statement is being filed after the period set forth in § 1.97(b) above but before the mailing date of either a Final Action under § 1.113 or a Notice of Allowance under § 1.311, or before an action that otherwise closes prosecution in the application, therefore:
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- In accordance with § 1.97(d), this Information Disclosure Statement is being filed after the mailing date of either a Final Action under § 1.113 or a Notice of Allowance under § 1.311 but before, or simultaneously with, the payment of the Issue Fee, therefore included are: Certification in Accordance with § 1.97(e); and the submission fee of \$180.00 as set forth in § 1.17(p).
- Copies of each of the references listed on the attached Form PTO-1449 are enclosed herewith.

- Copies of references listed on the attached Form PTO-1449 are enclosed herewith
- Copies of references listed on the attached Form PTO 1449 are not required to be submitted pursuant to the June 30, 2003 recent revisions to 37 CFR § 1.98(a)(2)(i).

EXCEPT THAT:

- In view of the voluminous nature of references [list as appropriate], and the likelihood that these references are available to the Examiner, copies are not enclosed herewith.
- In accordance with § 1.98(d), copies of the following references listed on the attached Form PTO-1449 are not enclosed herewith because they were previously cited by or submitted to the U.S. Patent and Trademark Office in patent application(s) for which a claim for priority under 35 U.S.C. § 120 have been made in the instant application:
  - Copies of references **1-25 and 63-73** listed on the attached Form PTO-1449 were previously cited by or submitted to the Patent and Trademark Office in prior Application No. **08/108,591 now U.S. Patent 6,395,474, filed November 22, 1993**; copies of references **26-62** listed on the attached Form PTO-1449 were previously cited by or submitted to the Patent and Trademark Office in prior Application No. **08/468,719, filed June 6, 1995**.

Please charge any deficiency or credit any overpayment to Deposit Account No. 23-3050. This form is submitted in duplicate.

The relevance of those listed references which are not in the English language is as follows:

There are no listed references which are not in the English language.

Date: October 7, 2003

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<b>Form PTO-1449 Modified</b>		Docket No. ISPS-2000	Application No. 10/657,600
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		Applicant Ole Buchardt, et al.	
U.S. Department of Commerce Patent and Trademark Office		Filing Date September 8, 2003	Group Not Yet Assigned
		Confirmation No. Not Yet Assigned	

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

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	<b>2</b>	Almarsson, O., et al., "Molecular mechanics calculations of the structures of polyamide nucleic acid DNA duplexes and triple helical hybrids," <i>Proc. Natl. Acad. Sci. USA</i> , 90, 7518-7522
	<b>3</b>	Brady et al., "Large-Scale Synthesis of a Cyclic Hexapeptide Analogue of Somatostatin," <i>J. Org. Chem.</i> , 52:764-769, 1987.
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**EXAMINER****DATE CONSIDERED**



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	<b>55</b>	Peffer, et al., "Strand-invasion of duplex DNA by peptide nucleic acid oligomers," <i>Proc. Natl. Acad. Sci. USA</i> , <b>1993</b> , 90(22), 10648-10652	
	<b>56</b>	Pitha, J., et al., "Synthetic analogs of nucleic acids," <i>Biomedical Polymers</i> , Academic Press, New York, Goldberg, et al. (Eds.), <b>1989</b> , 271-297	
	<b>57</b>	Rose, D.J., "Characterization of antisense binding properties of peptide nucleic acids by capillary gel electrophoresis," <i>Anal. Chem.</i> , <b>1993</b> , 65(24), 3545-3549	
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	<b>59</b>	Simon, et al., "Peptoids: A modular approach to drug discovery," <i>Proc. Natl. Acad. Sci. USA</i> , <b>1992</b> , 89, 9367-9371	
	<b>60</b>	Takemoto, et al., "Synthetic nucleic acid analogs preparation and interactions," <i>Adv. Polym. Sci.</i> , <b>1981</b> , 1-51	
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	61	Takemoto, K., "Recent problems concerning functional monomers and polymers containing nucleic acid bases," <i>Polymeric Drugs</i> , Academic Press, New York, Donaruma, et al. (Eds.), <b>1978</b> , 103-129	
	62	Wittung, et al., "DNA-like double helix formed by peptide nucleic acid," <i>Nature</i> , <b>1994</b> , 368(6471), 561-563	
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<b>Examiner Initial</b>		<b>Document No.</b>	<b>Date</b>	<b>Name</b>	<b>Class</b>	<b>Subclass</b>
	<b>63</b>	5,034,506	07/1991	Summerton, et al.	528	391
	<b>64</b>	5,166,315	11/1992	Summerton, et al.	528	406
	<b>65</b>	5,340,716	08/1974	Ullman, et al.	435	6
	<b>66</b>	5,539,082	07/1996	Nielsen, et al.	530	300
	<b>67</b>	5,705,333	01/1998	Shah, et al.	435	6
	<b>68</b>	5,719,262	02/1998	Buchardt, et al.	530	300
	<b>69</b>	5,773,571	06/1998	Nielson, et al.	530	300
	<b>70</b>	5,786,461	07/28/98	Buchardt, et al.	536	18.7

#### FOREIGN PATENT DOCUMENTS

<b>Examiner Initial</b>		<b>Document No.</b>	<b>Date</b>	<b>Country</b>	<b>Translation</b>	
					<b>YES</b>	<b>NO</b>
	<b>71</b>	WO 86/05518	25/09/86	PCT		
	<b>72</b>	WO 90/02749	22/03/90	PCT		
	<b>73</b>	WO 92/20702	26/11/92	PCT		

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